Before the
Federal Communications Commission
1919 "M" Street N.W.
Washington, D.C. 20554

In re the Matter of

Comments on Further Notice
of Proposed Rule Making

92-235
**PR DOCKET NO. ~~95-255~~**



To: The Secretary

# COMMENTS OF

SPECTRUM RESOURCES, INC.

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THE FOLLOWING ARE THE COMMENTS OF SPECTRUM RESOURCES, INC.

## INTRODUCTION

In response to the Introduction of the Further Notice of Proposed Rule Making, it is our opinion that the basic premise of the shared regulatory environment not containing the proper incentives is in error. The current system of FCC licensing has served the citizens of this country since the late 1940's. Each time the state of the radio communications art has changed, the Commission has enacted Rules narrow banding the Land Mobile Radio Channels. The industry then responded by decreasing bandwidth, thereby increasing the spectrum capacity to the advantage of all. In our opinion this has allowed efficient use of the radio spectrum and could continue to do so.

Throughout the majority of the U.S., the existing trunking systems are <u>not</u> full. With the expanded number of channels supplied by the latest Rule Making, there will be no need to implement the new technologies referenced, except in and around the largest (top twenty) major metropolitan areas of the United States.

Of greater importance is the elimination of the current categories of licensees with different frequency coordinators. This makes interservice sharing for licensees and applicants difficult and expensive. Even in the metropolitan area, where Spectrum Resources is located, (St. Louis) there are 25KHz, 150MHz channels that are unoccupied because of the difficulty in licensing. This is due to the reticence of some frequency coordinators to share these channels with other services.

According to the FNPRM there are over 500,000 licenses with 12 million mobile units currently in operation. The narrow banding and split channeling mandated in the latest Rule Change should more than double the capacity of the existing channels. This means that 1 million licensees with 24 million mobile units can easily be accommodated with the new narrow band channels.

The application of trunking and TDMA are important in some system designs. An allowance should be made to implement these technologies on a limited number of frequencies in the various frequency bands for large users. It should not be necessary to implement the limitations proposed in the Notice of Proposed Rule Making for all frequencies and all users throughout the U.S.

**EXCLUSIVITY**

Our comments on achieving the introduction of exclusivity are to simply limit certain channels within each frequency band for exclusive operations in a given area. The idea of the exclusive use overlay has more advantages than disadvantages as a method of accomplishing this task.

One problem which the exclusivity idea does not address is the potential for interference caused by anomalous propagation on the VHF and UHF Bands throughout the United States.

It is not unusual on the VHF and UHF Frequency Bands throughout portions of the U.S., during certain times of the year, to experience interference from systems 150 or more miles away. Although exclusivity or exclusive overlay can limit this problem, this unusual propagation will cause problems of interference irregardless of the systems involved.

We do not feel that public bidding will improve the use of radio spectrum throughout the U.S. In fact, it is our opinion that the Commission will find that, except for some bidding entrepreneurs, that the cost of bidding frequencies throughout much of the United States will be an expense to government. This is due to the fact that there is no lack of frequencies capable of supporting private land mobile systems in most of the U.S. at this time and these areas are growing slowly. We see no large unmet demand for channel capacity except in major metropolitan areas. Therefore, the income from auctioning frequencies will not supply government with as much revenue as envisioned. In addition, there is already de facto exclusivity on many of the radio channels currently operating in the United States. This is the result of the frequency coordination process. The coordinators keep the number of users on a radio frequency at a minimum or adequately spaced physically as to keep interference at a minimum level. It has been carried to extreme by some frequency coordinators. However, for many of the services, this has allowed licensee's exclusive use of their radio channel.

One area that has not been addressed in the area of exclusivity is the potential for channel abandonment by exclusive licensees. This could occur when it has been determined by the licensee that the channels cannot be used to full capacity. For example, an entrepreneur may bid and be awarded a number of channels within an area of the United States and implements a new radio system using enhanced technologies such as TDMA and trunking. After a few years, it may become apparent to that entrepreneur that due to the lack of demand, the channels can

never be loaded to capacity and even more important, a profit cannot be obtained in the operation of the system. What provisions are envisioned by the Commission to reclaim some or all of these under utilized frequencies that have been auctioned (sold) to others that cannot be adequately loaded? What Commission plans have been made to reclaim frequencies assigned to licensees where it has been determined by a licensee after bidding and awarding of the channels that a system cannot economically be implemented? Is it the goal of the Commission to refund the auctioned amount and then re-auction the channels? How will the spectrum be utilized in the interim?

We agree with Motorola's statements that the shared use of a single frequency in many areas easily exceeds the exclusivity requirements of 70 mobiles per channel. In effect, the shared users use the radio spectrum much more efficiently than could be accomplished by the use of trunking and/or TDMA. In fact, in the business radio services in metropolitan areas 300 or 400 units per channel in the urban areas is not uncommon. These users are capable of sharing the channel due to a number of reasons.

First, is the willingness to monitor and not transmit while others are using the channel. Second, is the fact that in urban areas many radio systems are modest. A system on one side of an urban area can use the frequency simultaneously with another licensee at the opposite end of the urban area allowing FM capture to solve interference problems. We also agree with NABER that for-profit carriers will unduly benefit from any exclusive usage of the radio channels. The greatest majority of Commission licensees, other than the public safety users, are small-business

owned land mobile systems. These licensees have implemented mobile radio to improve the level of service to their customers. They will not be interested in either joining a consortium for common purposes on their channel or channels or to be in the business of leasing excess capacity. Radio to them is simply a method of improving services and is not envisioned by the vast majority of being a potential profit center.

**USER FEES**

It is our opinion that user fees are a much better solution than competitive bidding for radio channels and will supply the Commission increased revenue. The Commission's current proposal is based on spectrum efficiency. The proposal is to supply economic incentives to implement spectrum efficient equipment. This includes such factors as bandwidth, area of operation and population. With proper authority the Commission could impose a fee structure based on bandwidth, number of units, area of operation, population coverage and population density. This will mean to the Commission that those channels in urban areas will generate a large amount of revenue. Channels in non urban and rural areas will generate less, but at least a small amount of income. If competitive bidding is used, the rural areas may not generate <u>any</u> bids. It should be emphasized that this method should also include some minimum technical standards, as well as allow technical flexibility. One area of concern is the charging of fees for shared use channels. Any shared use channel has a value based on the loading of the channel in that area. If a new licensee is granted access to this shared channel, the usage

increases, reducing the value to the existing licensees. Will the Commission rebate or refund a portion of the fees paid by the existing licensee's when a new user is added to a shared use channel?

We agree that the public safety users should be by and large exempt from user fees. However, a nominal fee structure is reasonable. Public safety entities would accept a small fee. However, the idea of the Federal Government charging a fee (TAX) to State and Local Governments may raise constitutional questions.

**COMPETITIVE BIDDING**

We feel that competitive bidding is the poorest choice to assign licenses in the Land Mobile Services. It will only promote spectrum efficiency at the cost of licensee flexibility and over the long term increase costs to the user. This will force users to either bid for spectrum in the bidding process or be forced to purchase communications services from others. This will obsolete their investment and force them into renting services at increased costs. It is also a "one shot" solution. In five years, where will a potential new licensee obtain spectrum?

The comparison between the Personal Communications Services and the Land Mobile Services is an "apples to oranges" comparison. The Personal Communications Services was envisioned from its inception to be a for-profit communications service. The PLMR Services have been historically an internal dispatch function for companies and governmental agencies, serving the licensee's own needs ONLY. The profit motive of PCS sets it apart from the PLMRS.

We feel that private licensees should be allowed to supply services to others only on those channels set aside for exclusive use or on a cooperative cost-sharing basis.

## NEW CHANNELS

The Commission is seeking comment on how to treat the new channels as a result of the narrow band Rule Making. These channels, in our opinion, should be treated as all other channels on a co-equal basis with an equal division between any exclusive use and shared use assignments.

## CONCLUSION

We feel that the Commission's fee and auction proposals will have a detrimental effect on the use of land mobile radio service to many existing and potential users. For many users, the use of land mobile radio is an expense endured to improve customer service. A large increase in the cost of these systems will force these users to abandon their systems and convert to some other communications method. Or, they may simply abandon this customer's service, decreasing the competitiveness of the U.S. economy.

These proposals will also have an unsettling effect on the industry. It appears that the Commission's goals are to force the small shared user to either purchase service from private carriers or to enter into cooperative agreements with strangers where the only affinity is the shared use of a radio channel. The only other option would be to enlarge his system and go into the

business of leasing his excess capacity, becoming a private radio carrier in addition to his core business.

This will cause new and existing licensee's to re-evaluate the use of radio in their business which will cause some to delay or abandon the upgrading and narrow banding of their systems. This is exactly the opposite of the Commission's goals.

If the true goal of the Commission is spectrum efficiency, the Commission not only would have mandated a time table for conversion to narrow band operations, but each user would have been required to use a 250Hz bandwidth channel and a low speed digital mode. This would allow maximum spectrum efficiency as virtually thousands of new channels could be made.